

COSMOS Cluster 1 Lab Schedule 2019 (Subject to change)

Week	Lab #	Date	Topic
1	1	7/8/2019 a.m.	Professor Chiang's lecture and demos--Introduction to Quantum Mechanics -- 152 Roessler
	2	7/8/2019 p.m.	Multimeters; DC circuits (resistors in series and parallel); fun with liquid nitrogen!
	3	7/9/2019 p.m.	Resistor circuits and Kirchhoff's Laws; introduction to AC circuits, complex impedances
	4	7/10/2019 a.m.	Measuring signals with oscilloscope, AC circuits, RC time constants, and low pass filter
	5	7/11/2019 p.m.	How to show amplitude vs log frequency on oscilloscope
	6	7/12/2019 a.m.	Professor Chiang's STM lecture -- Room 285 Physics
	7	7/12/2019 p.m.	2 slit interference with lasers -- Room 166 Roessler
2	7	7/15/2019 a.m.	Professor Dong Yu's guest lecture -- Nanostructured Solar Cells-- 285 Physics
			Bandpass filter. Measure Diode I-V curve and band gap of LEDs; Op amps, active filters,
	8	7/16/2019 p.m.	photodiode transimpedance amplifier
	9	7/17/2019 a.m.	Demo--2 slit interference, one photon at a time
	10	7/17/2019 p.m.	Arduinos -- blink LEDs, tricolor LED; buzzers and music
	11	7/19/2019 a.m.	Pulse reflection on cable
3	12	7/19/2019 p.m.	Arduinos-- switches, potentiometer, serial port, serial display
	13	7/22/2019 a.m.	Professor Kai Liu's guest lecture: Nanomagnetism-- 285 Physics
	14	7/22/2019 p.m.	Arduinos -- D/A and A/D converters
		7/24/2019	Project -- build STM
		7/25/2019	
4		7/26/2019	
		7/29/2019	Project -- build STM
		7/30/2019	
		7/31/2019	
		8/1/2019	
		8/2/2019	